Colorado Division of Wildlife

Hunting

# SURVIVAL

This information is taken from The Art of Survival Pamphlet prepared by Papa Bear Whitmore. It is meant as a guide only and perhaps an inspiration to look further into the art of survival. It is designed to make you aware that something indeed could happen to you. Graveyards are full of people who said, “It could never happen to me.”

The information was secured by actual survival trips into Colorado’s high country in winter weather and sub-freezing temperatures.

Preparation for the Trip

With all the four-wheel drive vehicles, snowmobiles and trail bikes, survival is a problem that any outdoorsman may have to face. Transportation may break down in a remote area.

There is no pat answer to survival because no two situations are alike. However, there are some basic points which help to explain why some people pass a survival text but others fail.

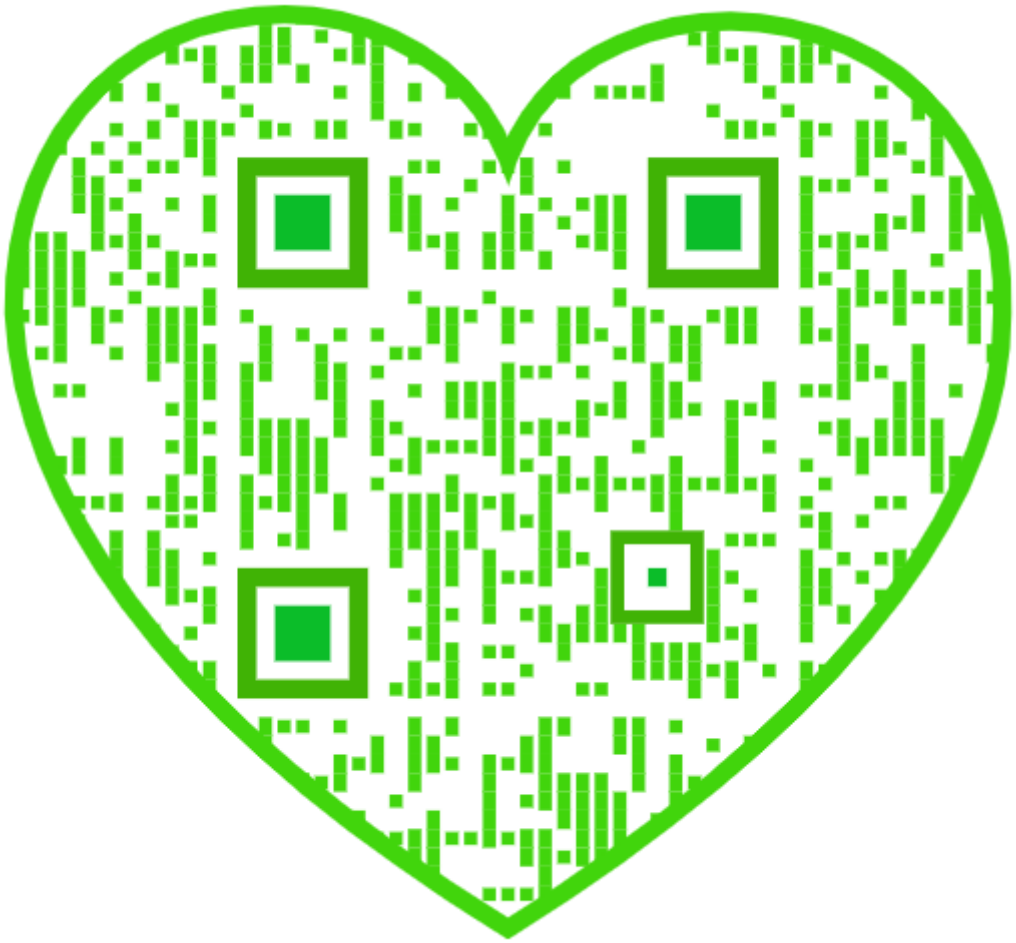
We distill our philosophy of survival down into two words – “STAYING ALIVE.” Therefore we must have some basic rules for survival.

RULES FOR SURVIVAL

1. ALWAYS tell someone where you are going and when you plan to return. If you change your general area, tell someone of that change.

2. Never go into a wilderness area by yourself. Unavoidable accidents do happen.

3. Wear proper clothing and take proper equipment. The weather can and will change.



4. If you do get lost or stranded, STAY PUT. We will find you if you have followed rule No. 1.

5. Learn how to use a compass, take a map of the area and orient yourself before leaving camp.

6. Always carry a survival kit and know how to use it. A survival kit in the hands of someone who does not know how to use it can kill.

To keep yourself alive in the wilderness, you must have given some thought to the possibility before the situation comes up. Survival is 80 percent attitude, 10 percent equipment, and 10 percent skill and knowledge to use that equipment.

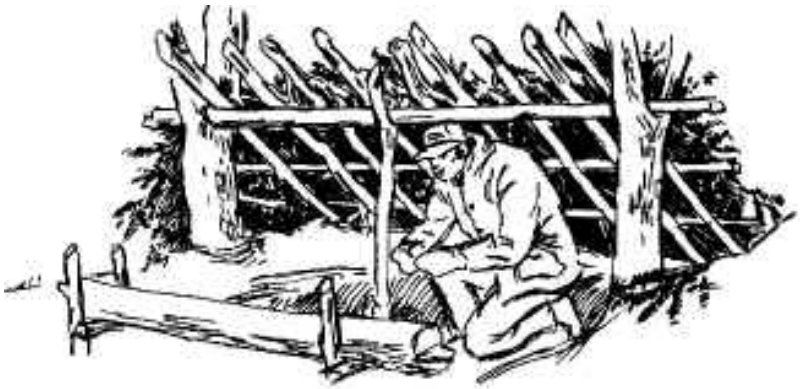
Survival is also a very personal thing. You are like no one else in the world. Survival may be seasonal, and definitely is geographical. Equip yourself for the three necessities – Shelter, Fire and Signal - no matter who you are, where you go or at what time of year. Let's call them THE BIG THREE.

## 1. SHELTER

You must have shelter each night. Consider your shelter to be the number one priority of life. Have something that will protect your body, not only from rain or snow, but also from the wind. Even if you have nothing else going for you – no fire, food or anything – and you have adequate shelter, you're probably going to be alive when rescuers come to get you.

Choose your campsite with care. Avoid avalanche or snowslide areas. It should be protected from the wind, if possible, but also near a large clearing suitable for ground to air signaling. An overhanging rock shelf makes an ideal shelter. In timber country where snow is deep, removing the snow from under a spruce tree will provide a quickly available shelter. Branches at snow level form the roof and branches may be cut and placed around the edges.

A snow cave may be dug in winter where snowdrifts of sufficient depth can be found. A one-man cave should be dug about 3' wide X 7' long and just high enough for comfort. Don't make it any larger than necessary. Snowcaves are difficult to dig without getting wet and therefore are less desirable than other forms of shelter. However, they do offer excellent insulation. Be certain to maintain ventilation in your snow cave by making a hole in the roof. It is also advisable to arch the inside roof so water will run down the sides. The sleeping shelf should be a foot or more above the entrance and covered with boughs or a ground cloth. Water and dirt destroy the insulating properties of clothing. Water conducts heat away from the body 27 times faster than dry, still air.



A lean-to can be made in timbered terrain. Support is required for a ridge pole about three feet from the ground. Two upright poles or crotches in trees will provide the upright support. Limbs or branches are leaned (butt end up if they have foliage) against the ridge pole. Cross members interwoven make the lean-to more secure and help make the shelter water resistant. Thatch the roof with spruce or fir branches by placing the butt end toward the top. Complete the ends in the same manner. The lean-to may be improved by banking with snow or soil. A fire between the lean-to and reflector made of logs, stones (not from a stream bed, they may explode when heated) or a space rescue “blanket” will warm the shelter.

With shelters, plan for the worst first. Conserve and build up all resources from the beginning before greater emergencies overtake you. In applying this theory to shelters, it is obvious that the probability of early rescue should be completely disregarded. You should build the most secure and comfortable shelter that can be erected – one that will require little maintenance once it is constructed. The importance of doing the job well while you are able to do it cannot be overemphasized.

CLOTHING

Clothing is the shelter you wear around your body. Dress for the weather – remember it can and will change. Layers of clothing (shirts, vest, sweaters) are recommended. You put on a layer before you become chilled and take off a layer before, not after, you become perspiration damp. No matter how you get wet, from outside climatic conditions or your own body perspiration; when you’re wet you are in trouble.

Good headgear is essential. You lose up to 45 percent of your heat around your head, neck and shoulders. Winter headgear should conserve heat, breathe and be water repellent. Summer headgear should ventilate and provide shade.

The body radiates heat readily from the head and extremities. The old saying, “If your feet are cold put your hat on” is good advice. Good headgear, footwear and gloves or mittens are absolute necessities to help conserve body heat. Keep clothing clean and dry.

Choice of footwear is critical. Choose boots suitable for the terrain, weather and amount of walking to be done. Regardless of boot type, it is important to have a change of socks (wool recommended) to prevent dampness from perspiration condensation.

Sturdy leather boots are excellent footwear. Waterproofing used on leather boots should permit the leather to breathe. When boots become wet, dry slowly and carefully. Walk boots dry if conditions permit. Leather lined and insulated leather boots are extremely difficult to dry.

Rubber pac-type boots with removable felt liners are excellent footwear, but felts are difficult to dry when perspiration soaks the outer layers of felt and the inside of the boot. Some prefer the nylon or leather-topped rubber pac with the removable felt liners. The leather-topped rubber pac is superior to the all-rubber pac, especially for walking, because of the breathing qualities of leather.

Gloves or mittens are a must even if weather is not cold. Gloves will prevent injury to the hands when breaking firewood or building a shelter. Inn extreme cold, mittens are superior to gloves.

Some type of raingear should be carried. Remember, waterproof clothing does not breathe. A raincoat, water-repellent parka, or poncho should offer some ventilation and ease of movement. Movement should be kept at a minimum when wearing rain gear to lessen perspiration.

## 2. FIRE

The ability to build a fire is paramount. No matter where you are, or no matter what your survival situation, you must be able to build a fire. You must consider fire to be the number two priority of life.

There are five basic uses for a fire under survival conditions:

1. Warmth (warm your body, dry your clothes, cook your food, etc.)

2. Companionship (you are never really alone when you have a fire).

3. Signaling (ground to air and ground to ground).

4. Lighting (we are a light-oriented society).

5. Protection (it protects us against all those wild beasts that are not out there).

The fireplace location should be carefully selected. Do not build a fire under a tree as it may catch fire. Heat may also melt snow from the branches and make everything wet. If the fire must be built upon snow, construct a platform of green logs or stones. Avoid wet, porous rocks as they may explode when heated. If the ground is dry, scrape down to bare dirt to avoid starting a grass or forest fire. Build the fire against a rock or wall of logs which will reflect heat into your shelter. Most fuels cannot be started burning directly from a match. You will need some easily inflammable tinder such as small twigs, wood shavings, bark, dead pine needles, dry leaves, grass or tissue paper to get the fire going. Place the tinder in a low pyramid. Powder from a cartridge may help ignite the tinder. For fuel, gather dry standing dead wood or dried dung. The inside of dead tree trunks or large branches may be dry even if the outside is wet. Have all materials (tinder, kindling, and fuel) on hand before attempting to light your fire.

FIRE-BUILDING

Your ability to build a fire is made easier by advance preparation. The individual who has given fire building some thought or has had to start a fire under adverse conditions is usually better prepared to meet an emergency. In addition to carrying a visible fuel supply (Butane lighter, metal match or wooden matches in a waterproof container) we recommend carrying tinder such as cotton balls, 0000 steel wool or sawdust saturated with paint thinner inn a suitable container. A candle may also aid as a fire starter and provide heat and light. When using steel wool or cotton balls, fluff the material by pulling the strands apart gently. Both materials will ignite readily from a spark. Steel wool burns brightly after ignition if you blow gently upon it. Both materials should be kept in a waterproof or water resistant container such as sealable sandwich baggies. Sawdust saturated with paint thinner may be carried in a plastic pill vial, or a handy container may be fashioned out of spent 12 and 16 gauge plastic shotgun hulls. Merely fill the 16-gauge hull with the saturated sawdust and cap it with the 12-gauge hull. Tape can be used to seal the joint. This device will enable you to start many fires with a match or spark. Although they may last longer, we recommend you replenish the thinner and sawdust annually. We strongly recommend experimentation with various methods and any starting materials before going into the field.

Useful Hints…

Store kindling and fuel in as dry a place as possible. Don't waste matches by trying to start a poorly prepared fire base. Build a small fire and conserve fuel and energy. Stay away from waterproof windproof matches. They are a safety match requiring a striker. If the striker gets wet (same as a paper matchbook) it may be useless and then all your matches are useless. Always build your fire before it gets dark and be sure to gather 10 times the amount of fuel you think you will need.

3. SIGNAL

You have put to use all the techniques for building a shelter, building a fire, and you've made it for just about 17 hours. This is a fine place to visit but you don't want to live here. Now you must think about signaling. You must consider signaling your third priority of life. There are two goals here; first to let someone know where you are; and second, to let someone know you need help. The main rule to keep in mind regarding signaling is that a good signal is anything that makes you bigger than you are and attracts attention to your situation.

Signaling, like everything else in survival, is not a spur-of-the-moment thing. You must prepare for it so that it is ready when you need it. You may never know when help may come within sight or hearing. You must be prepared for two types of signaling – ground-to-air and ground-to-ground.

One of the early decisions to make is to locate a clearing where signaling efforts can be seen. If you are not in that clearing when you become lost, you must move to a clearing, then stay put until a highly-qualified search and rescue team finds you.

Your signaling process is dictated, to some extent, by geography and the time of year. If you are in the mountains it is more than likely that any signaling you do at night is going to be a waste of time. Because of hazardous flying conditions, most search flights end at sundown, and treacherous terrain may rule out ground searches as well. In the desert or on the plains, however, searches often go on around the clock.

Symbols…

There is a new set of international symbols that has been developed by a committee on international civil aviation. Keep in mind, though, that if the symbols are being used to attract attention, they need to be from 30 to 50 feet in length and 3 to 4 feet wide. If they are being used in response to a question asked by a pilot in the air via a PA system, they need only be large enough to convey your message. These symbols should be constructed out of any kind of ground litter or debris, tramped in snow or sand or whatever is available.

The first symbol is a “V.” This means REQUIRE ASSISTANCE. The second symbol is an “X.” This means REQUIRE MEDICAL ASSISTANCE. “N” means NO. “Y” means YES. An arrow pointing in a direction means PROCEEDING IN THIS DIRECTION. These do not replace any of the military symbols – this is strictly for civil aviation.

Signal Fires…

Fire is a powerful signaling tool and one that takes advance preparation. Three fire bases should be prepared in a triangle 30 to 50 feet apart. This creates a V which means “Require Assistance.” The fire at the apex of your V should be your camp fire which will be burning at all times. The fire bases on the points of the V will be prepared but not burning. When a search aircraft (a single engine aircraft or a helicopter) enters your area, touch off your other two fire bases. This will give you a triangle of fire which will distinguish your plea for help from other fires that may be in the vicinity that you know nothing about. The same applies to smoking fires. Build your fire bases, on the points, with extremely dry tinder on the bottom. On top of that put lots of dry kindling, and on top of that pile green vegetation. When a search aircraft enters your area pile green material on top of your existing fire, and torch off you other two fire bases. This will give you the triangle of smoke.

Signal Mirror…

The very best type of ground-to-air signal during sunlit hours is the glass G.I type signal mirror. This type of mirror will generate 5 to 7 million candlepower of light in bright sunshine and can be seen for 20 to 25 miles. This type of power will never be generated by the nearly useless metal mirror. This mirror is available at most surplus stores. Read the directions on the back of the mirror and practice.

Sound…

Ground-to-ground signaling takes various forms. We have found that a vinyl police or coach type whistle makes the finest ground signal. It can be heard for quite a distance, except in heavy timber/brush. Rain, fog and snow will also dampen the sound. Remember three blasts of a whistle repeated over and over is a distress signal.

Signal Flares…

The use of aerial flares is not only geographical, but is also determined by law. Many states prohibit them in forested areas. Most aerial flares are designed for marine use and are intended to extinguish in the water. This means that most flares are still burning when they hit the ground. You cannot outrun a forest fire!

We have now covered THE BIG THREE: SHELTER, FIRE AND SIGNAL and it's time to think about some things that are almost as vital.

4. WATER

Many years ago finding safe drinking water was one of the easiest of survival techniques. Water was readily available from lakes, ponds, streams, springs or snow banks. Today all these sources must be considered suspect, and the collecting of drinking water much more of a problem. Keeping oneself hydrated can be quite a problem at any time of year. In a survival situation (except in a desert) a person needs about three quarts of water a day to metabolize our own body's energy reserves and to carry away the waste. Your body will not demand this much water, so you must measure your daily intake so that you get a minimum of three quarts a day. Another thing to remember; warm up water when in a cold environment. Drinking three quarts of ice cold water could lower your body's core temperature and put you in hypothermia.

Water can be gathered in lots of ways and places, it can even be squeezed out of damp moss. The beneficial effects of water can be cancelled out if that water contains one or more disease causing organisms.. Giardia lamblia is a surface water born intestinal parasite. It produces a disease called GIARDIASES and is now found throughout the U.S. Man carried it back into the country and animals spread it around. DO NOT DRINK RAW (UNTREATED) WATER ANYWHERE IN THE BACK COUNTRY. For short trips take your own water supply with you. For longer trips be prepared to purify your drinking water.

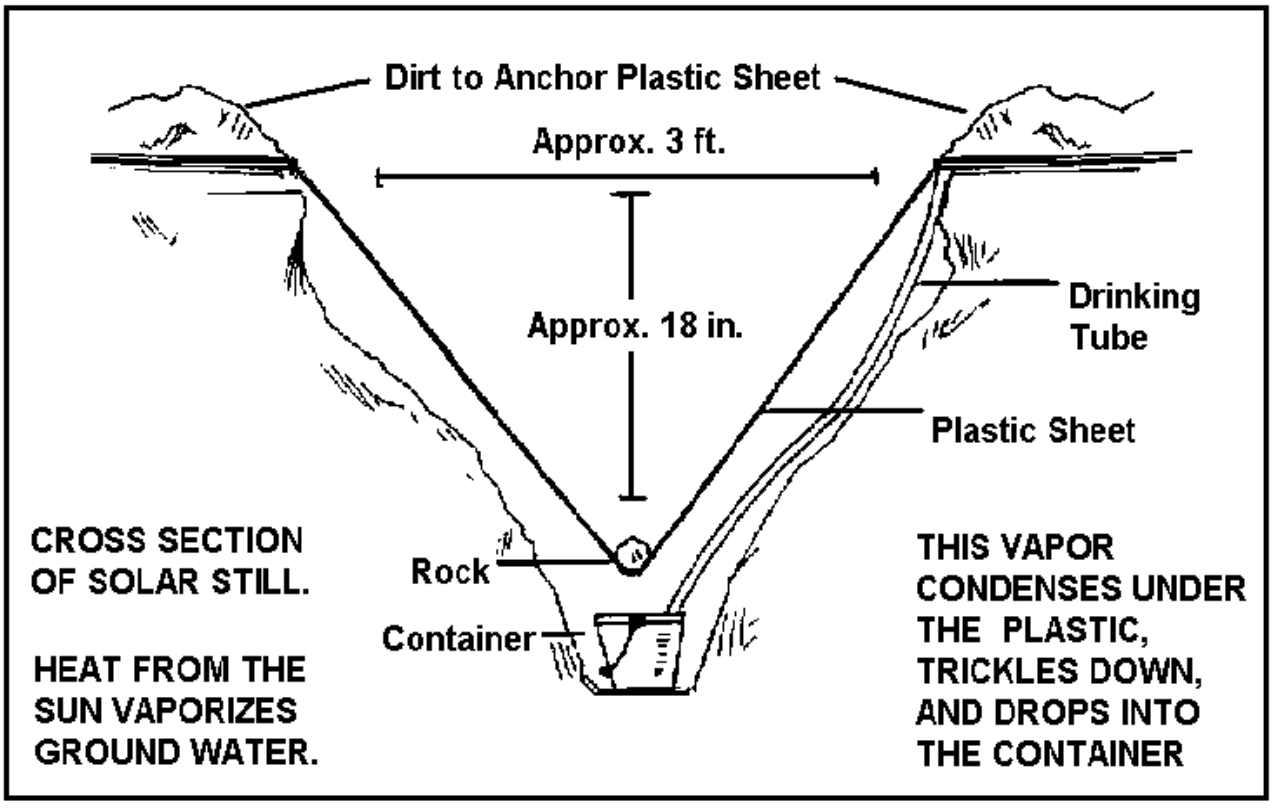
The most common method of drinking water purification is by boiling. You must not start counting boiling time until you have a rolling boil, start with five minutes at sea level; add one more minute for every 1,000 feet of altitude you think you are at, then add a couple more minutes because you probably don't know where the heck you are anyway.

Water Purification Tablets…

When you follow the directions on the bottle carefully, they will take care of most water borne diseases. Check the label to determine what disease organisms it is effective against. Chlorine bleach and 2 percent tincture of iodine is also effective. Use 10 drops of either in one quart of water. All three methods of water purification require a minimum of 30 minutes contact time. Do not cut the time short. If your water is very cold or cloudy, give additional time.

Solar Still…

If you are low or out of water in a semi-arid region you may wish to construct a solar still. This takes some specialized equipment so it is only for the well prepared. A solar still consists of a bowl-shaped hole in the ground about 3 feet in diameter and 18 inches deep. A one-quart, squat, plastic container is placed in the bottom of the hole. A 4- to 5-foot section of surgical tubing is secured to the bottom of the water collection container with a piece of duct tape. A sheet of clear plastic, 6 foot by 6 foot, 3 mil in thickness, covers the hole. The drinking tube extends to the outside, under the plastic. A 4- inch square of duct tape is placed the center of the plastic to support a small rock placed there in the center to cause the plastic to form a cone shape. Water condenses on the underside of the plastic sheet, runs down and drips into the container. The tubing lets you sip collected water without dismantling the still. Vegetation put into the hole during construction will increase water output. One solar still might give you one to three quarts of water per 24-hour period. This is not enough to keep you alive so you must build three or four stills. Remember, soils in many semiarid areas are baked hard by the sun. If you waste more body water digging through the ground than you are going to get out of it, you are quickly in the area of diminishing returns. Click on the small image on the right to see an illustration of a "Solar Survival Still."


Dirt to Anchor Plastic Sheet
Approx. 3 ft.
Approx. 18 in.
Drinking Tube
Plastic Sheet
CROSS SECTION OF SOLAR STILL.
HEAT FROM THE SUN VAPORIZES GROUND WATER.
Rock
Container
THIS VAPOR CONDENSES UNDER THE PLASTIC, TRICKLES DOWN, AND DROPS INTO THE CONTAINER

5. FOOD

Food really is not important in short term survival situations. You can live up to three or four weeks without food. No one should starve to death in the continental United States. You will, however, be efficient and alert, and have more confidence if you are able to satisfy your hunger. Don't get hung up on wild green edibles as they contain cellulose and you cannot digest cellulose.

There are probably many sources of food in your area but it will be necessary to change your way of thinking to recognize them. If you are fortunate enough to get lost in a pinon pine forest, pinon nuts and pine needle tea will keep you alive for a long period of time. Generally speaking, anything that walks, crawls, hops, flies, swims or wiggles is edible. But all must be cooked before eating. Your gun or fishing equipment, assuming you have them, should provide the best means for a meal. Don't waste more energy catching an animal than you will get from it. Avoid game or fish that appear to be sick, lazy, or act strange. Learn how to make and use snares. You must have enough wire too make a dozen or more snares. Set them over a wide area and hope for the best. Division of Wildlife laws and regulations must be followed unless you are in a true survival situation.

There are many ways of acquiring food. For more information, refer to your local library or bookstore. Do remember this. Never eat wild berries or mushrooms. A single mouthful could be enough to kill you. 95 percent of all white and yellow berries are poisonous, 50 percent of all red berries are also poisonous. 85 percent of blue and black berries are edible, but of the remaining 15 percent, about 5 percent will kill you, and the other 10 percent will make you wish you were dead. Best of all, carry enough food with you to sustain you in an emergency.

Minimum Equipment

1. Proper clothing – Dress for weather but remember it can change.

2. First Aid Kit – Get a kit that addresses wilderness emergencies.

3. Knife – This is your most important survival tool.

4. Rain Gear – Poncho preferred.

5. Water – For short trips, and water purification tablets.

6. Food – High energy and light weight.

7. Survival Kit – It must provide THE BIG THREE.

Shelter Package:
2 ea. Gold and silver emergency blankets

1 ea. Sheet plastic, 3 mil., 6 foot by 6 foot

1 ea. 50 feet parachute cord

1 ea. Electricians tape, must be cold resistant

Fire Package:
2 ea. Matches, strike anywhere, in waterproof containers

1 ea. Magnesium Firestarting Tool or Metal Match

2 ea. Steel wool, #0000, in ziplock baggies

1 ea. Candle

Signal Package
1 ea. Glass G.I. type signal mirror

1 ea. Whistle, plastic “coach” type

1 ea. Daylight fluorescent orange cloth signal panel, 3 foot by 3 foot

These are the items we insist on in a basic survival kit. There are other items yet to be considered but let’s look at and explain these 12 first.

Emergency Blanket Shelter…

The emergency blanket is a handy and versatile item, essential inn your survival kit. This heat reflector can also be used to construct a shelter in itself. It’s a good item to have along when there is a shortage of natural construction materials at hand.

Remember, this emergency blanket is a heat reflector and nothing else. It is simply a thin sheet of plastic with a highly reflective material, usually on one side only. This side is the silver side. Because of the thin material used in this blanket, they are not particularly strong. They will shatter in windstorms, so they must be backed up with a heavier piece of material to prevent them from coming apart in the wind. If you do not have this sort of backing, the emergency blanket is not adequate as a shelter.

To construct the shelter, tie the cord between two trees or other uprights about three feet from the ground. Backing/reinforcing the emergency blanket with the 3 mil. Plastic, tape the combination over the cord all the way along the surface. Then, by straightening the blanket-plastic combination out and putting rocks, snow or other ground litter or debris on the far edge, you have completed a lean-to. The wind direction, at least initially, should be

over the back of the shelter. Then, beneath the shelter put down another emergency blanket with the silver side up, put insulating material (pine boughs or whatever) on top, and build a fire out front. Now approximately 80 percent of the heat that goes into the shelter from the fire will be reflected down onto you from the top blanket, and heat will be reflected back up to you from the blanket underneath. In effect, you have a reflector oven which can "toast" you all night long. Another emergency blanket or piece of plastic thrown over the front of the shelter about one to one and one-half feet will help to hold the heat in.

Fire…

For fire-making, your first bit of flame capability should be plain old strike-anywhere kitchen matches. Weatherproof these by dipping them in paraffin, and store them in waterproof containers. In addition to the matches, you should include two pads of #0000 steel wool. This cab be ignited by applying a spark from any source, such as touching it to the terminals of a nine-volt battery. Candle wax may be rubbed into any piece of cloth to make a fire starter. Add to this a Metal Matchâ or Magnesium Firestarting Toolâ and you have the ability to start fire in a wide variety of ways.

Signaling…

A glass G.I.-style signal mirror is a primary signaling device. Metal mirrors are extremely poor reflectors. "G.I. style" indicates that this is the type of mirror that incorporates an aiming device to assist in controlling the reflection. It's easy to see where you're shinning a mirror on the ground when you can see the spot of light in the dirt or trees, but shine it up into the sky to try to attract a pilot's attention and you're out of luck. With the aiming device type of mirror, you can tell exactly where the light is shining.

The gold side of your Emergency Blanket makes a excellent signal panel, ground to air, when placed in a clearing. The same is true with the daylight fluorescent orange cloth. The cloth may be purchased at a fabric store.

Water…

Water is an important necessity of life, but water taken from tainted sources can actually do more harm than good. Make sure that your survival kit includes water purification tablets, preferably Potable Aquaâ brand. These tablets, when used in conjunction with boiling, can keep 'Montezuma's Revenge' (diarrhea from GIARDIASES) away from your survival campsite.

Other equipment items you may want to consider…
Fishing tackle – 3 small hooks, 2 flies, 10 yards monofilament line, split shot. Fits into small plastic box.

Aluminum foil – Heavy duty for cooking

T.P. – If you don't know what that stands for you're in trouble already.

G.I canteen cup – Boil water, cook food, melt snow

Flashlight – survival, small

Snare wire – smooth wire found in hobby shops

Dental floss – Sew your clothes (place needles in container),
fishing line, snare line

Insect repellent – In some areas a must

There are many other items you might consider but make sure you keep your survival kit light in weight. Do not carry unnecessary items.

Procedures

If you find yourself in a situation where you are lost or stranded, sit down and try to stay calm. Think over past events to see if you can retrace your footsteps or travel pattern. Think before dark. If you realize you will be unable to return to your camp destination, or are uncertain as to your location, commit yourself to spending the night where you are. Immediately begin preparations for the night. Pick the best campsite in the immediate area and build a small fire. Campsite selection should include readily available firewood, materials for shelter construction and it should be free of natural hazards. Availability of drinking water is also an important factor. Gather enough firewood to last the night. A roaring fire is not a necessity unless being used as a signal for help. Keep clothing as dry and as clean as possible. Take care of equipment. Don't lose or waste anything. Build or set up your shelter. If you do not have materials for constructing or setting up shelter in your gear, construct a lean-to or fashion a shelter from available materials.

In shelter construction, thought should be given to wind direction. Heat should be radiated into a shelter, not blown into it. Heat reflectors on the back side of a fire may be constructed of logs, rocks, boulders, green boughs or a space rescue blanket. Caution should be used as the space rescue blanket may catch fire.

Time permitting, improve your shelter. The importance of doing the job well while you are able to do it cannot be overemphasized. A bough bed, if about 8 inches or more in thickness, will insulate you from the ground. Boughs should be placed in rows with the broken ends toward the ground. Use of boughs is not recommended for ordinary camping because of the unnecessary destruction of foliage.

Take care of yourself: Your best survival tool is your head – use it! When faced with a survival situation, it is particularly important to check yourself for injuries. Don't add to your problem. If you become frightened and panic, the chances of injuring yourself or inducing hypothermia are increased. Do only what is necessary, very carefully and after thinking it out. If you are already injured, take time to care for yourself, as pain or loss of blood can reduce your efficiency. You should have first aid equipment as part of your survival kit.

In cold, damp or snowy weather your first problem may be frostbite. To prevent frostbite keep your hands, feet and exposed areas warm, dry and protected from wind. Check frequently for numbness or a change in skin color to gray or to yellow-white spots. Do not rub frostbitten areas with snow. Warm affected areas by placing next to your abdominal region or other areas of the body. If you get wet (perspiration or immersion), find a way to dry yourself and your clothes immediately. Protect your eyes from overexposure by taking along sunglasses or goggles.

In a desert or hot area you must take precautions against overexposure to the sun. You may be affected by sunburn, heat cramps, heat exhaustion or heat stroke. All may be prevented by staying out of the sun and avoiding overexertion since sweating uses body fluids rapidly.

Hypothermia: "KILLER OF THE UNPREPARED"

Exposure is a term that crops up every winter and often during warmer times of the year. Exposure has no definite medical meaning but is probably a substitute of the word hypothermia. Have you ever been so cold that you could not stop shivering? Uncontrolled shivering is one of the first signs of hypothermia or the lowering of the inner core temperature of the body. As the condition progresses, there is an increasing lack of coordination followed by loss of judgment and a fairly rapid descent into unconsciousness and death. An unprepared person may become a victim at temperatures as high as 45˚ (degrees) Fahrenheit. In cases affecting hunters or hikers a combination of four factors are usually present:

1. Cold (45˚ or below).

2. Wetness (caused by rain, snow, immersion or condensed perspiration).

3. Wind (chill factor).

4. A likely victim (meaning a person who is exhausted and certainly unprepared to protect himself or herself).

Good clothing, adequate knowledge, emergency shelter and emergency rations would prevent most fatalities from accidental hypothermia. This is why hypothermia is called the "Killer of the Unprepared."

Immediate steps should be taken if you or one of your party shows signs of uncontrolled shivering. Warming of the body and intake of warm liquids (do not take or give alcoholic beverages) and quick energy foods are recommended to restore body functions to normal.

Know your enemy. Never underestimate the power of cold, dampness and wind. Do not overestimate your own strength or that of your party. One individual or mishap can pin you to a location exposed to the elements.

Summary

Always tell someone where you are going and when you will return.
Always take someone with you, never go out alone.
Always stick to your plan, stay put if you become lost or stranded.
Always carry a survival kit and first aid kit and know how to use both.
Always dress for weather but prepare for changes.
Always carry rain gear, you must protect yourself from the elements.
Always remember that there is no shame in getting lost, the shame if having to come out in a body bag…

Suggested Additional Reading

The W.I.S.E. Man's Guide to Wilderness Survival – Whitmore, Papa Bear
Outdoor Survival Skills – Olson, Larry Dean
Surviving the Unexpected Wilderness Emergency – Fear, Eugene
The Search – Brown, Tom, Jr.
The Secrets of Warmth – Weiss, Hal

Poisonous Dwellers of the Deserts – The Arizona Sonora Desert Museum
Medicine of Mountaineering – The Seattle Mountaineers

"there is no need to die in the wilderness…"

Papa Bear Whitmore

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